

Guidance on Computer-based Testing for the Next-Generation MCAS

September 19, 2016

MASSACHUSETTS DEPARTMENT OF
ELEMENTARY AND SECONDARY
EDUCATION



Presenters

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- ★ Bob Lee, Chief Data Analyst
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- ★ Jodie Zalk, Test Administration Coordinator



Agenda

★ 1:00–1:30 p.m.: Information for Districts New to Computer-Based Testing

- ★ Computer-Based Testing Transition Plan
- ★ Communication and District Planning
- ★ Basics on Computer-Based Testing
- ★ Accommodations and Accessibility
- ★ Scheduling and Other Logistics

★ 1:30–2:30 p.m.: Information for All Districts

- ★ General Timeline of Activities for Fall/Winter
- ★ Testing Mode Decision Survey
- ★ CBT Waiver Process
- ★ Questions and Answers



Information for Districts New to Computer-Based Testing

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Computer-Based Testing Transition Plan

- ★ November 2015: Board [vote](#) set a goal of implementing computer-based testing (CBT) for virtually all students by spring 2019.
- ★ June 2016: Department [announces](#) phase-in plan for MCAS CBT.
- ★ Spring 2017: All students in grades 4 and 8 will take the computer-based ELA and math tests.
- ★ After administration, plans will be finalized to transition remaining grades to CBT.



Determine Students' Digital Readiness

- ★ Do our students have the right computer skills (digital literacy) to complete online assessments?
- ★ What additional skills need to be addressed this school year?
- ★ Review [digital readiness guidelines](#).



Prepare Your School's Infrastructure

- ★ How many students will be tested?
- ★ How will we set up our school's testing schedule?
- ★ How many devices (computers or tablets) are available for student use for testing?
- ★ What preparations do we need to do for the classrooms/testing areas where the devices are located?
- ★ How reliable is our network (e.g., bandwidth)?



Prepare Stakeholders for CBT

★ Staff and educators

- ★ Attend virtual or face-to-face trainings
- ★ Watch online training modules
- ★ (See the schedule for trainings in the Back-to-School edition of the [Student Assessment Update](#).)

★ Students

- ★ Curriculum incorporates digital learning
- ★ Tutorials and Practice Tests available in early 2017
- ★ Practice with released [MCAS](#) and [PARCC](#) test items

★ Parents and the community



Identify the MCAS Team and District Communication Strategy

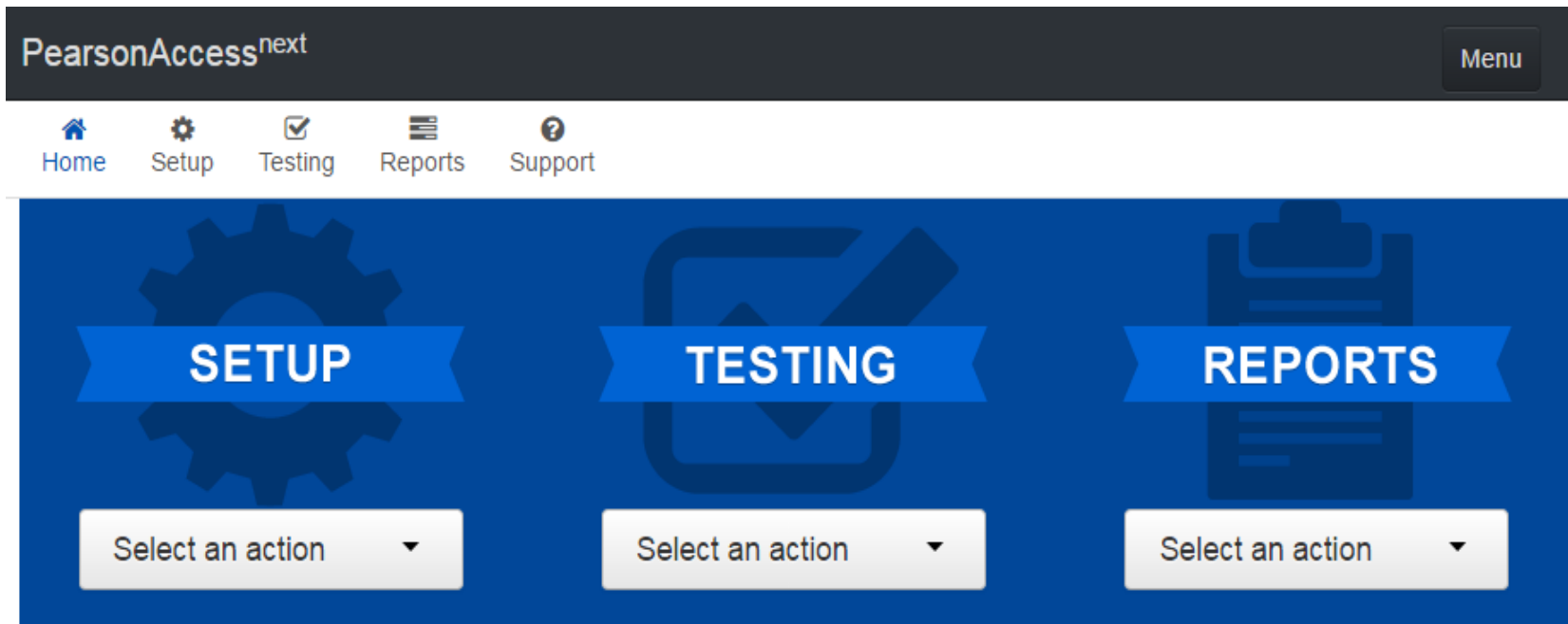
- ★ Who will fill these roles?
 - ★ Educational Technology Director
 - ★ MCAS Test Coordinator
- ★ Important emails about MCAS are sent to these individuals from the Department (mcas@doe.mass.edu) and Measured Progress/Pearson.
 - ★ How will information be shared across the district?
- ★ Review contact information in the ESE Directory Administration and [submit updates](#).



System Basics

PearsonAccess^{next}

- ★ PearsonAccess^{next} (**PAN**) is the online management system
 - ★ for principals, test coordinators, and technology coordinators
 - ★ to manage accounts, manage student registration, and monitor testing progress



Creating PAN Accounts

- ★ The Department will create PAN accounts in early 2017 based on the Directory Administration (DA) roles:

DA Role	PAN Role
Superintendent	District Test Coordinator
MCAS Test Coordinator (district level)	District Test Coordinator
Educational Technology Director (district level)	Technology Coordinator (district role)
Principal/MCAS Test Coordinator (school level)	School Test Coordinator

- ★ Districts and schools will need to create additional accounts as needed.
- ★ Different roles provide different levels of access in PAN.
 - ★ Review user roles with the MCAS administration team (coming soon).



ESE Responsibilities for Student Registration/Personal Needs Profile (SR/PNP)

- ★ The Department will complete the initial student data upload which will be used as the basis for registering students and ordering materials for both CBT and PBT.
 - ★ All students in grades 3–8, based on October 2016 SIMS
- ★ Students will be assigned to take the tests based on:
 - ★ Grade listed in SIMS
 - ★ Testing mode selected by the district
- ★ Accommodations will be uploaded based on spring 2016 MCAS or PARCC
 - ★ Grades 4–8 (accommodations data does not exist for current 3rd graders)
 - ★ Excluding students who took MCAS-Alt



District and School Responsibilities for Student Registration/Personal Needs Profile (SR/PNP)

Before October 2016

- ★ Ensure that [SIMS enrollment data](#) for October SIMS report are correct.
- ★ October SIMS will be the basis for the initial information in PAN.

January 2017 (expected)

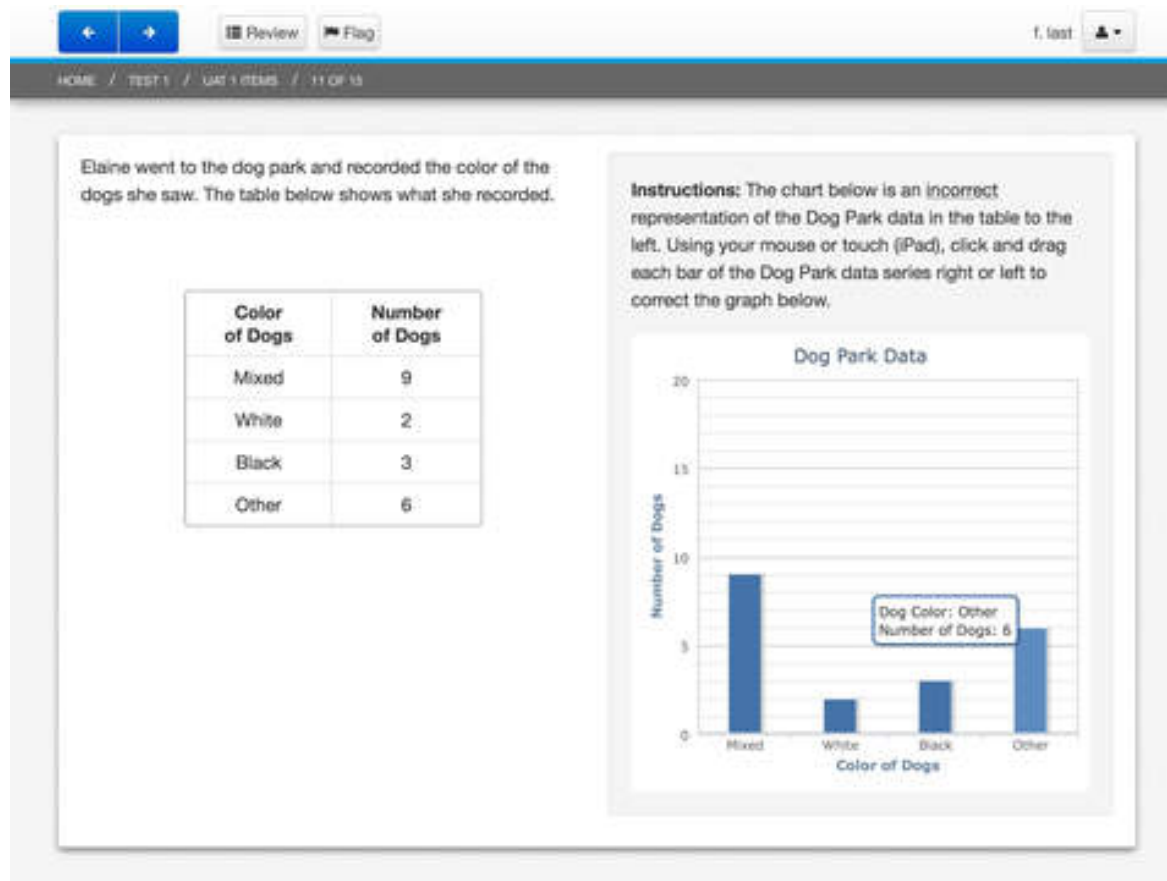
- ★ Update information in the SR/PNP in PAN.
 - ★ **Note:** Student information will need to be updated in SIMS in March and June, *in addition to PAN*.
- ★ Add/update accommodations, including special forms (e.g., Braille, text-to-speech).



System Basics

TestNav™

- ★ TestNav is the online test delivery platform for students.



Overview of MCAS Accessibility and Accommodations for Grades 3–8

- ★ Some previous MCAS accommodations are now available *to all students*:
 - ★ **Universal Accessibility Features**, available to *all* students on new computer- and paper-based MCAS.
 - ★ **Designated Accessibility Features** can be given to *any* student at the discretion of the principal.
- ★ **Accommodations** available to *students with disabilities* and *English language learners*.
- ★ **Special Access accommodations** (formerly "*Nonstandard*") available if certain criteria are met
- ★ Features and accommodations may differ on computer- and paper-based tests.
- ★ Add to IEP/504 plan: paper-based test as an accommodation.
- ★ www.doe.mass.edu/mcas/accessibility/



Student Testing Device Specifications

- ★ See [the technology specifications](#) for the requirements for device operating system, processor, memory, minimum screen size, and minimum screen resolution.
- ★ Tests can be administered on:
 - ★ Windows desktops, laptops, and tablets
 - ★ Mac desktops and laptops
 - ★ Linux desktops and laptops
 - ★ iPads
 - ★ Android tablets
 - ★ Chromebooks



Hardware Considerations

- ★ Plan for logistics.
 - ★ Power strips
 - ★ Battery adapters for mobile devices
 - ★ Extension cords
 - ★ Training for test administrators and technology support staff
 - ★ District support techs for testing days, if possible
 - ★ Extra devices for each testing area
- ★ Headphones required for text-to-speech accommodation
- ★ External keyboards recommended for tablets



Determining the Number of Devices Needed

★ Device calculator

Calculate the number of devices needed for computer-based testing based on different scenarios.

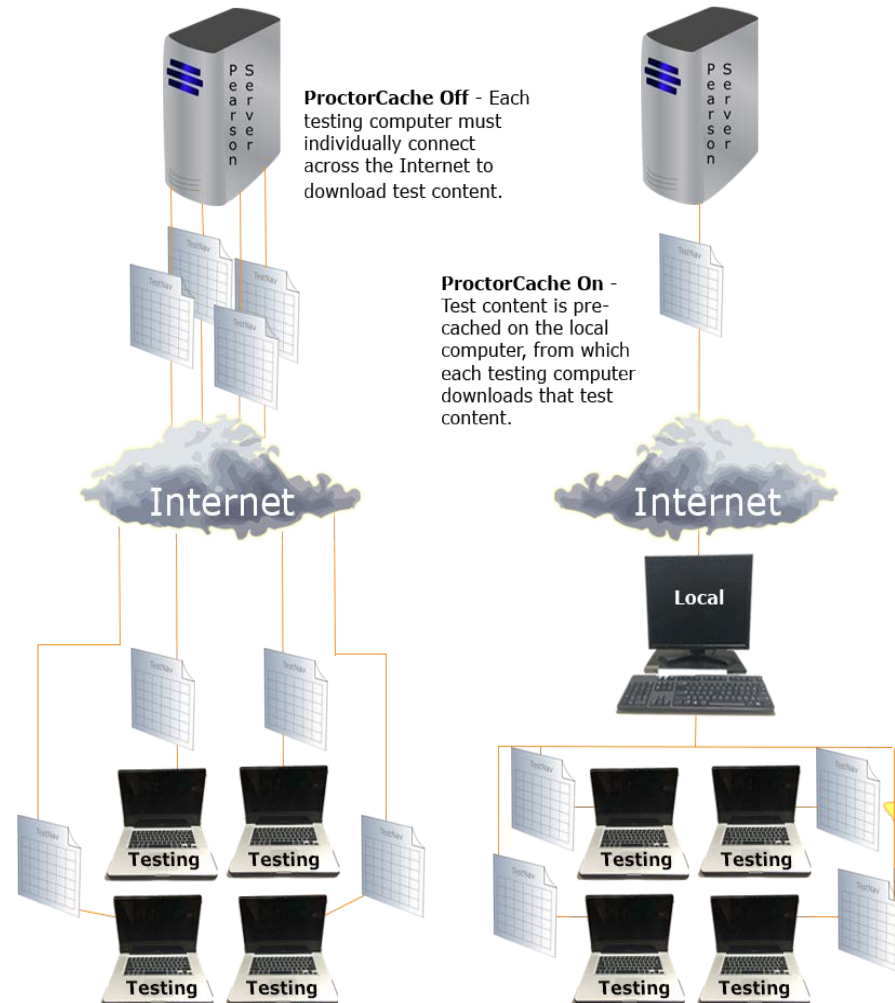
QUESTIONS	NOTES & CONSIDERATIONS	INPUT
Over how many days will you give the test?	The maximum number of days in the testing window is 35. Enter a number less than 35 to see the effect of a shorter window on the number of devices needed for testing. Keep in mind that ELA tests need to be completed within 20 days of the start of the testing window.	17
How many sessions will you give per day?	Enter a number between 1 and 3. Most schools have found 2 sessions/day to be the most realistic.	2
How many students are you testing?	This is the enrollment count across the grades you intend to administer computer-based tests.	362
What is the maximum number of sessions per tested student?	At most, students sit for 6 sessions.	4
The cells below are locked. These calculations will change based on the information provided above.		
Number of testing sessions available	<i>Multiplies the number of days in your testing window by the number of sessions/day</i>	34
Total number of "seats" needed for testing	<i>Multiplies the number of tested students by the number of sessions/tested student</i>	1448
Total number of devices needed for testing	<i>Divides the total number of seats above by total number of sessions available</i>	50



System Basics

- ★ ProctorCache pulls and stores test content to a local computer.
- ★ Content is distributed to students via TestNav during testing.
- ★ Proctor caching can be completed on a Windows or Mac desktop with a static IP address.

ProctorCache



Bandwidth Requirements

- ★ Schools are strongly encouraged to use proctor caching in order to avoid testing issues due to bandwidth constraints.

Bandwidth Specifications

External Connection to the Internet		
Minimum with Proctor Caching	Minimum without Proctor Caching	Recommended for Assessment and Instruction
5 kilobits per second (kbps)/student	50 kilobits per second (kbps)/student	100 kilobits per second (kbps)/student or faster

- ★ Bandwidth requirements are for each concurrent test-taker.
 - ★ If there are 60 students testing online simultaneously **WITH** proctor caching, the school would require **300 kbps** of available bandwidth.
 - ★ If there are 60 students testing online simultaneously **WITHOUT** proctor caching, the school would require **3,000 kbps** of available bandwidth.



Infrastructure Trials

- ★ Opportunity for schools to prepare for CBT by simulating the testing environment and network utilization (strongly recommended)
- ★ Functions as a dress rehearsal to confirm that:
 - ★ TestNav is configured correctly
 - ★ Devices can successfully run TestNav
 - ★ Network is able to successfully handle the testing load
 - ★ Staff and students become familiar with the CBT environment, tools, and format
- ★ Conducted through PAN training site
 - ★ available in early 2017



Scheduling and Other Logistics

- ★ Develop testing schedule based on considerations, such as
 - ★ Test administrators
 - ★ Testing locations
 - ★ Available technology staff
 - ★ Number of students to be tested concurrently
 - ★ Devices
 - ★ Recommended testing time



Scheduling considerations

- ★ Testing window for grades 3–8:
 - ★ **April 3–May 3** for ELA
 - ★ **April 4–May 26** for Mathematics
 - ★ **April 5–May 26** for STE (grades 5 and 8)
- ★ Different recommended testing times and number of sessions from 2016:
 - ★ **ELA:** 3 sessions for grades 3–5;
2 sessions for grades 6–8
 - ★ **Mathematics:** 2 sessions (grades 3–8)



Information on Computer-Based Testing for All Districts

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General Timeline for Fall/Winter Activities

Timeframe	Activity
By October 14	Districts inform ESE of testing mode decisions for grades 3–8 schools.
October	Districts update SIMS with current student information.
Fall	Districts/schools update information on ESE Profiles as needed based on current test administration teams.
Early January	Department uploads Student Registration (SR/PNP) information to PearsonAccess ^{next} (PAN)
Mid-January	Schools verify SR/PNP information in PAN and update as needed.
Mid-January	ProctorCache software available for download (strongly recommended); install software close to testing.
Beginning in late January	Schools conduct infrastructure trials (strongly recommended).



Testing Mode Decision Survey

- ★ Passwords and instructions sent on **Friday, September 16.**
 - ★ From: mcas@doe.mass.edu
 - ★ To: Superintendents
- ★ Survey opens today, **Monday, September 19.**
- ★ Responses due **Friday, October 14.**



Survey Instructions for Logging In

- ❶ Enter name and email address.
- ❷ Enter the password from the email.
- ❸ Acknowledge that you will review the MCAS technical specifications with your district's technology coordinator.



Survey Instructions

★ Which of the following describes your district's MCAS testing mode for the spring 2017 grades 3–8 test administration?

- A. All the schools in my district will administer computer-based tests (CBT) for grades 3–8 ELA and Mathematics.
- B. All the schools in my district will administer the minimum required computer-based tests (grades 4 and 8 ELA and Mathematics), and all the schools in my district will administer paper-based tests for the other grades (grades 3, 5, 6, and 7).
- C. My district has a different plan for administering computer-based tests and paper-based tests for grades 3-8 ELA and Mathematics.
- D. This form is not applicable for my district (i.e., my district does not serve grades 3–8).



Survey Instructions (Continued)

If you choose...	Description	You will see...
A	All schools will do CBT for grades 3–8.	"thank you" message
B	All schools will do CBT for grades 4 and 8, and PBT for grades 3, 5, 6, and 7.	"thank you" message
C	My district has another plan.	Another question (see next slide)
D	This survey isn't applicable (my district doesn't serve grades 3–8).	"thank you" message



If you select option “C”...

- ★ Will your district administer the same testing mode for all students taking ELA or Mathematics in a given grade?

Answer...	If...
Yes	all the schools within your district will have the same testing mode
No	there are school or grade exceptions



If **all** the schools within your district will have the same testing mode...

	ELA	Math
Grade 4	<input type="text"/>	<input type="text"/>
Grade 8	<input type="text"/>	<input type="text"/>

Grades 4 and 8:
Selecting PBT
requires
submitting a
waiver request.

	ELA	Math
Grade 3	<input type="text"/>	<input type="text"/>
Grade 5	<input type="text"/>	<input type="text"/>
Grade 6	<input type="text"/>	<input type="text"/>
Grade 7	<input type="text"/>	<input type="text"/>



If there are school or grade exceptions ...

❶ Download an Excel template.

5. You indicated that your district will have a testing mode plan that may be different across schools. Please download the 2016-17 test mode decision template Excel file. **Be sure to come back to this page to upload the completed file no later than 12:00 p.m., October 14.**

[2016-17 Gr 3-8 Mode Assessment Decisions School By School TEMPLATE](#)

❷ Click on the “**instructions**” tab. In the green box, select the **name of your district** from the dropdown menu.

❸ Click on the other tab (“**TEMPLATE**”). In the first column, select **each school** in your district from a dropdown menu.

❹ Select the **testing mode** (CBT or PBT) for each subject area and grade level for each school listed.

★ If a school does not serve students in a particular grade, select NA.

❺ Upload the file.



① On the “instructions” tab...

Please select your district below.

SELECT A DISTRICT

On the template tab, in the School name column, you will have a dropdown menu with all your schools serving grade 3-8 in the district. You may need to scroll over the grey arrow to view the dropdown menu.

Once you have selected all the schools in your district, you will select the testing mode (CBT for Computer Based Testing and PBT for Paper Based Testing) for each subject area and grade level for each school listed. If that school does not serve students in that grade, please select NA

Selecting PBT for ELA or Mathematics in grades 4 or 8 will require a waiver. If your district is requesting a waiver from the computer-based testing requirement for grades 4 and 8 ELA and Mathematics, the Department will email you with the steps that need to be completed in order to have the waiver request considered.

instructions TEMPLATE

Ready



② On the “TEMPLATE” tab...

The screenshot shows a data entry form with a table structure. A red arrow points to the header row of the table, which is highlighted in orange. The header row contains the following columns: D, E, F, G, H, I, J, K. The first row of data is labeled 'School Name' in column D, 'Grade 3-ELA' in column E, 'Grade 3-Math' in column F, 'Grade 4-ELA' in column G, 'Grade 4-Math' in column H, 'Grade 5-ELA' in column I, 'Grade 5-Math' in column J, and 'Grade 6-ELA' in column K. Below the 'School Name' header, there is a dropdown menu with the text 'SELECT SCHOOL'. A red oval highlights the bottom of the form, which includes a navigation bar with buttons for 'instructions' and 'TEMPLATE', and a status bar that says 'Ready'.

D	E	F	G	H	I	J	K
School Name	Grade 3-ELA	Grade 3-Math	Grade 4-ELA	Grade 4-Math	Grade 5-ELA	Grade 5-Math	Grade 6-ELA
SELECT SCHOOL							

Be sure to upload file to submit testing mode decisions.

Once you entered all data for all the schools in your district into the template, save it locally and then click to upload it below.

Browse...

Upload



After Completing the Survey

- ★ Superintendents will receive an email confirmation of submission.
 - ★ **Note:** Decisions on waiver requests will be communicated by December 23.
- ★ Choices can be changed until **October 14**, at which time, **decisions will be binding.**



CBT Waiver Details

- ★ A waiver is an exception from CBT expectation for grades 4 and 8 ELA and Math for certain schools, grades, or subjects.
- ★ Superintendent/designee is responsible for submitting waiver.
- ★ Waiver requests (3-step process) due by October 14
- ★ ESE determinations to be communicated to districts by December 23.



CBT Waiver Process (3 Steps)

- ❶ Indicate grades/subjects on the Testing Mode Survey for each school for the waiver is being requested.
- ❷ Letter from superintendent sent to mcas@doe.mass.edu
 - ★ Describing need for waiver
 - ★ Current plan for district's technology readiness for SY2017–18
- ❸ [ODL Technology Readiness survey](#) must be completed for each school for which the district is requesting a waiver.



Support

★ MCAS policy questions and questions about the CBT waiver process:

★ Office of Student Assessment Services

★ mcas@doe.mass.edu

★ 781-338-3625

★ Technology readiness questions:

★ Office of Digital Learning

★ odl@doe.mass.edu

★ 781-338-3000



Questions & Answers

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